any one have doubted that it was the origin of the disease? It is objected that a small number only of all who were exposed were attacked; or that at another time no cases follow the introduction of those sick of it. All this is true, and is to be explained, so far as it can be explained, by the influential presence, in one case, of the epidemic influence, which predisposes to the disease, and its absence in the other. The state of a community in relation to cholera, after the epidemic influence has prevailed for a time, is very similar to the same community in relation to small-pox when vaccination has been generally but not universally resorted to. If the small-pox is introduced into the latter, a portion of the inhabitants, who are entirely unprotected, will be attacked by the disease in its full force; another portion, partially protected by imperfect vaccination, will pass through it in a form variously modified, while a larger part, in whom the susceptibility has been entirely destroyed, will altogether escape. What is this but saying, in other words, that some persons are for a particular, and in this case a known reason, susceptible to the cause of the disease, while others are not. Now in the other case, after that epidemic influence which predisposes to cholera has been for a time present in a community, a portion of the inhabitants will become susceptible of the disease in its most appalling forms, others less affected will pass through it mildly, while a large part escape entirely. Now in this state, the disease will be propagated variously, according to a great variety of modifying influences. Sometimes, especially when, along with this epidemic influence, there are the concurrent circumstances of a crowded and diseased population, impure air, great fatigue, unwholesome food, &c., the disease appears suddenly, and spreads with a rapidity which forbids the idea that its propagation depends solely or principally upon personal communication; as in the British army in India, under the Marquis of Hastings, in November, 1817, which, consisting of 10,000 English troops, 6,000 Sepoys, 50,000 or 60,000 camp followers, lost 9,000 men in eight days; when the army, continuing its march and reaching a different location, the disease suddenly ceased. In other cases, the disease begins and advances more gradually, commencing with those whose constitution has been impaired by previous excesses, and after a time seizes upon many of previously sound constitution and correct habits. In this case, the immediate exciting cause is often some temporary imprudence in regimen or diet, or the influence of the depressing passions. In other cases still, the outbreak and progress of the cases are so directly connected with the presence of those sick with it, as to leave no doubt that this fact was essential in the case to the production and extension of the disease.

"Now the same circumstances and the same train of thought might be stated as belonging to the other diseases named—dysentery, erysipelas, and yellow fever. Not that these are precisely alike in all the features which have been described, for each has its own peculiarities. Yet, they resemble each other strongly in all those great and leading facts which prove the combined influence of the epidemic constitution of the air, and of personal intercommunication in their propagation." D. F. C.

Art. XVI.—*Lectures on Electricity and Galvanism, in their Physiological and Therapeutical Relations, delivered at the Royal College of Physicians.* Revised and extended, by Golding Bird, A.M., M.D., &c. London, 1849: 12mo. pp. 212.

Notes on the Medical Application of Electricity. By William F. Channing, M.D. Boston, 1849: 12mo. pp. 200.

On concluding the perusal of the first of the works the title of which is given above, the question occurs with considerable force, why have electricity and galvanism met with so little favour at the hand of the physician as a remedial means? Is it that the statements here made are destitute of the full confidence which they demand from the clearness of narration, the *vraisemblance* of details, and the high character of the author? or does it arise from want of familiarity with the subject, and unwillingness to undertake the use of remedies which might involve either the necessity of personal attention of the physician, or the risk

of entrusting a powerful agent to hands incompetent to its proper management? However much influence the latter reasons may have, we would nevertheless hope that the attention of the profession might be drawn to consider more favourably the claims of this agent; and even at some personal inconvenience to bestow more attention to its influences. With this view, we would recommend to their notice the two small works whose titles are at the head of this article. The first of these consists of five lectures, delivered before the Royal College of Physicians, and reported in the *London Medical Gazette* in the year 1847, and which attracted so much attention, that the author was induced to revise and publish them in a separate form. The three first lectures are occupied with the discovery, theories, and physiological relations of electricity, in its most extended sense; and the latter two with its effects, pathological relations, management, and mode of application. It is to the fourth and fifth lectures that attention is more particularly directed, as in these will be found the practical portions of the subject, and reasons derived from experience which should induce to its further examination, and from which the author has felt himself justified in using the following strong, though candid terms, when speaking of its utility: "Conscientiously convinced that the agent in question is a no less energetic than valuable remedy in the treatment of disease, I feel most anxious to press its employment upon the practical physician, and to urge him to have recourse to it as a rational but fallible remedy, and not regard it as one capable of effecting impossibilities. I again say, I shall advance nothing but what has been repeatedly tested under my own observation, purposing to lay before you the results of many years' careful clinical experience in this matter, in the wards of Guy's Hospital; and hope to make out a strong case in favour of this too much neglected remedy."

A general consideration is given to the different modifications of electricity, as derived from the machine and from chemical action, or induced by galvanic currents, together with the direction of the current, according to forms or mechanical arrangements of the instrument, with a more particular account of a single current machine of the author's contrivance, by which the electricity may be made to flow in any determinate direction which may be desired, and its course altered at pleasure. The forms used and recommended vary from the simple continuous application of a small pair of zinc and silver plates, to more complicated electro-magnetic instruments; and cases are related illustrative of the relative applicability and advantages of each form. On applying a single pair of plates, above mentioned, a collateral effect may be produced by placing the plates in direct contact with a surface recently denuded, when, as a consequence of the decomposition of the serous exudation, a caustic compound of zinc is produced, which will form a superficial slough, and thus establish an issue without much pain. In connection with this, Dr. Bird expresses his surprise that neither Grapenheiser nor Dr. T. Harris had noticed this effect produced under the zinc plate, and considers this "the more unintelligible, as the latter gentleman had paid much attention to the subject." In this remark, Dr. Bird has overlooked a difference in the mode of application amply sufficient to account for the apparent oversight. By Dr. Bird's mode of application, the two plates come in direct contact with the denuded surfaces, while Dr. Harris adopted the method recommended by Mansford, of interposing a thin slice of moistened sponge under one, and of raw meat under the other, no contact with the surfaces being permitted.

The cases produced as examples of the efficacy of the agent embrace most forms of disease in which the nervous system in whole or in part is involved, and those in which the increase or stimulation of nervous action would be beneficial.

In the work of Dr. Channing, the same subjects are reviewed and more details given, as to the instruments and the modes of application which may be adapted to the different cases of disease. A considerable amount of information has been collected, and numerous cases detailed of its successful use by various persons, not only in the affections noticed by Dr. Bird, but others unconnected with nervous influences, as aneurism, opacity of the cornea, &c. It is to be hoped that these works will not be presented to the medical public

in vain, but that sufficient attention may be drawn to the subjects of which they treat, to induce some of our well educated physicians to acquire familiarity with the use of this agent; and by careful investigation of its therapeutic powers, determine their intrinsic value. R. B.

Art. XVII.—*Curabilité de la Phthisie et des Scrofules appuyée sur des preuves authentiques.* Par A. M. Bureaud Riofrey, Docteur en Médecine de la Faculté de Paris, &c. &c. Paris et Londres, 1847. 8vo. pp. 216.

The Curability of Phthisis and Scrofula supported by authentic proofs. By A. M. Bureaud Riofrey, Doctor of Medicine of the Faculty of Paris, &c. &c. Paris and London, 1847.

"Consumption curable" has been so long the device of ignorant and unprincipled men, that an effort by qualified physicians to prove its correctness is very apt to be received with suspicion or incredulity. Hence courage of no ordinary character is required to face the frowns of the skeptical, and to invoke the attention of the profession to facts by which the curability of the disease may be maintained. The author of the work before us is justly entitled to credit for the earnestness and perseverance with which he has investigated this subject, and for his laudable desire to convert others to his opinions. To succeed, however, in this attempt, it will be necessary that he shall adduce more convincing arguments and more pertinent facts than he has yet done. He contends with imaginary evils, and wastes his strength in the destruction of abandoned systems. The treatment of phthisis with the lancet and gum water holds no longer, that we are aware, any place in the estimation of physicians, except, perhaps, when judiciously employed in the commencement of some cases of acute tubercular disease. Hence the very considerable portion of the book, which is taken up with an intended serious refutation of the evils of this practice, is wholly deficient in applicability. Nor do we believe that the author has rightly apprehended the tone of medical feeling, when he charges physicians with being so skeptical of the curability of consumption, that the unhappy victims of this malady are, in consequence, abandoned to their fate; a charge which becomes more weighty when it is added that a consumptive patient is in the position of a drowning man, to whom, if the hand be extended, he may be saved, but who will else assuredly perish. Certainly, in view of the great mortality from this disease, the refusal to extend this trifling aid would be very reprehensible; and, impressed with the sense of our own shortcomings, we have sought anxiously to find some hint by which this opportune remedy might be recognized.

But M. Bureaud Riofrey, we are rejoiced to find, disclaims positively the possession of any specific. Nor is he in favour of any exclusive remedy or system, but uses the following means, singly or conjoined, in cases where they seem appropriate: "Change of locality, an artificial atmosphere, sedative and calming medicines, equable temperature, mercurial, anti-scrofulous, and antiherpetic treatment, antagonistic diseases, puncture of the thorax, and fattening" (*engraissement*). While he thus enumerates his own resources, the lamentable ignorance of medical men in general is thus exposed:—

"Ignorance of the power of the constitution (*état des forces*), of the resources of art, skepticism in regard to the cure, indifference to patients, remedies given at hazard, ignorance of the localities recommended and of artificial atmosphere, ignorance of the most digestible nutriment, of antagonistic diseases and conditions, ignorance of the dilatation of the bronchia, of pulmonary gymnastics, of fattening, and of puncture of the thorax." "Truly medical ignorance is very great."

We forbear to remark upon the justice of these charges, or to extract other passages of a similar nature from the work. But, it may be asked, in what does the peculiarity of the author's views and treatment consist? His therapeutics, as may be seen above, do not differ materially from those which are in general use, with some exceptions, which we will presently notice. He de